

Allison.ST25

SEQUENCE LISTING

<110> Board of Trustees Operating Michigan State University
Allison, Richard

<120> Expression of Recombinant Transgene

<130> 6550-000072

<150> US 60/485073

<151> 2003-07-03

<160> 15

<170> PatentIn version 3.2

<210> 1

<211> 26

<212> DNA

<213> Cowpea chlorotic mottle virus

<400> 1

aagtggatcc cctcttgtgc ggctgc

26

<210> 2

<211> 16

<212> DNA

<213> Cowpea chlorotic mottle virus

<400> 2

actccaaaga gttctt

16

<210> 3

<211> 835

<212> DNA

<213> Cauliflower mosaic virus

<400> 3

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cagcaggtct catcaagacg atctaccga gcaataatct ccaggaaatc aaataccttc 120
ccaagaaggt taaagatgca gtcaaaagat tcaggactaa ctgcatcaag aacacagaga 180
aagatatatt tctcaagatc agaagtacta ttccagtatg gacgattcaa ggcttgcttc 240
acaaaccaag gcaagtaata gagattggag tctctaaaaa ggtagttccc actgaatcaa 300
aggccatgga gtcaaagatt caaatagagg acctaacaga actcgccgta aagactggcg 360
aacagttcat acagagtctc ttacgactca atgacaagaa gaaaatcttc gtcaacatgg 420
tgagacacga cacacttgtc tactccaaaa atatcaaaga tacagtctca gaagacaaaa 480
gggcaattga gacttttcaa caaagggtaa tatccggaaa cctcctcgga ttccattgcc 540
cagctatctg tcactttatt gtgaagatag tggaaaagga aggtggctcc taaaatgcc 600
atcattgcga taaaggaaag gccatcggtg aagatgcctc tgccgacagt ggtcccaaag 660
atggaccccc acccacgagg agcatcggtg aaaaagaaga cggtccaacc acgtcttcaa 720
1

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agcaagtgga ttgatgtgat atctccactg acgtaagggg tgacgcacaa tcccactatc 780
 cttcgcaaga cccttcctct atataaggaa gttcatttca tttggagaga acacg 835

<210> 4
 <211> 581
 <212> DNA
 <213> Encephalomyocarditis virus

<400> 4
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 gggcccggaa acctggccct gtcttcttga cgagcattcc taggggtctt tcccctctcg 180
 ccaaaggaat gcaaggctctg ttgaatgtcg tgaaggaagc agttcctctg gaagcttctt 240
 gaagacaaac aacgtctgta gcgacccttt gcaggcagcg gaacccccca cctggcgaca 300
 ggtgcctctg cggccaaaag ccacgtgtat aagatacacc tgcaaaggcg gcacaacccc 360
 agtgccacgt tgtgagttgg atagttgtgg aaagagtcaa atggctctcc tcaagcgtat 420
 tcaacaaggg gctgaaggat gcccagaagg taccctattg tatgggatct gatctggggc 480
 ctcggtgcac atgctttaca tgtgttttagt cgagggttaa aaaacgtcta ggccccccga 540
 accacgggga cgtggttttc ctttgaaaaa cacgatgata a 581

<210> 5
 <211> 581
 <212> RNA
 <213> Encephalomyocarditis virus

<400> 5
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 gccggugugc guuugucuau augugauuuu ccaccauuu gccgucuuuu ggcaauguga 120
 gggcccggaa accuggcccu gucuucuuga cgagcauucc uaggggucuu uccccucucg 180
 ccaaaggaau gcaaggucug uugaauugcg ugaaggaagc aguuccucug gaagcuucuu 240
 gaagacaaac aacgucugua gcgaccuuu gcaggcagcg gaacccccca ccuggcgaca 300
 ggugccucug cggccaaaag ccacguguau aagauacacc ugcaaaggcg gcacaacccc 360
 agugccacgu ugugaguugg auaguugugg aaagagucaa auggcucucc ucaagcguau 420
 ucaacaaggg gcugaaggau gcccagaagg uaccccauug uaugggaucu gaucuggggc 480
 cucggugcac augcuuuaa uguguuuagu cgagguuaaa aaaacgucua ggccccccga 540
 accacgggga cgugguuuuc cuuugaaaaa cacgaugaua a 581

<210> 6
 <211> 581
 <212> DNA

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<213> Encephalomyocarditis virus

<400> 6

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ttttaacctc gactaaacac atgtaaagca tgtgcaccga ggccccagat cagatcccat	120
acaatggggg accttctggg catccttcag ccccttggtg aatacgcttg aggagagcca	180
tttgactctt tccacaacta tccaactcac aacgtggcac tgggggttg cgcctttgc	240
aggtgtatct tatacacgtg gcttttggcc gcagaggcac ctgtcgccag gtgggggggt	300
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tgcttccttc acgacattca acagaccttg cattcctttg gcgagagggg aaagaccctt	420
aggaatgctc gtcaagaaga cagggccagg ttccggggcc ctcacattgc caaaagacgg	480
caatatggtg gaaaatcaca tatagacaaa cgcacaccgg cttattcca agcggcttcg	540
gccagtaacg ttagggggggg gggagggaga ggggcggaat t	581

<210> 7

<211> 581

<212> RNA

<213> Encephalomyocarditis virus

<400> 7

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acaauggggg accuucuggg cauccuucag ccccuuguug aaucgcuug aggagagcca	180
uuugacucuu uccacaacua uccaacucac aacguggcac uggggguugug ccgccuuugc	240
agguguaucu uauacacgug gcuuuuggcc gcagaggcac cugucgccag guggggggguu	300
ccgcugccug caaagggucg cuacagacgu uguuugucuu caagaagcuu ccagaggaac	360
ugcuuccuuc acgacauuca acagaccuug cauuccuuug gcgagagggg aaagaccccu	420
aggaaugcuc gucaagaaga cagggccagg uuuccggggc cucacauugc caaaagacgg	480
caauauggug gaaaucaca uauagacaaa cgcacaccgg ccuuauucca agcggcuucg	540
gccaguaacg uuagggggggg gggagggaga ggggcggaau u	581

<210> 8

<211> 242

<212> DNA

<213> Cowpea chlorotic mottle virus

<400> 8

agtccccgt gaagagcgtt acactagtgt ggcctacttg aaggctagtt ataaccgttt	60
ctttaaacgg taatcggtgt tgaaacgtct tccttttaca agaggattga gctgcccttg	120
ggttttactc cttgaaccct tcggaagaac tctttggagt tcgtaccagt acctcacata	180

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cc 242

<210> 9

<211> 242

<212> RNA

<213> Cowpea chlorotic mottle virus

<400> 9

agugcccgcgcu gaagagcguu acacuagugu ggccuacuug aaggcuaguu auaaccguuu 60

cuuuuaacgg uaaucguugu ugaaacgucu uccuuuuaca agaggauuga gcugcccuug 120

gguuuuacuc cuugaacccu ucggaagaac ucuuuggagu ucguaccagu accucacaua 180

gugagguaau aagacuggug ggcagcgcgu agucgaaaga cuaggugauc ucuaaggaga 240

cc 242

<210> 10

<211> 242

<212> DNA

<213> Cowpea chlorotic mottle virus

<400> 10

ggtctccta gagatcacct agtctttcga ctaggcgctg cccaccagtc ttattacctc 60

actatgtgag gtactggtac gaactccaaa gagttcttcc gaagggttca aggagtaaaa 120

cccaagggca gctcaatcct cttgtaaaag gaagacgttt caacaacgat taccgtttta 180

agaaacggtt ataactagcc ttcaagtagg ccacactagt gtaacgctct tcagcgggca 240

ct 242

<210> 11

<211> 242

<212> RNA

<213> Cowpea chlorotic mottle virus

<400> 11

ggucuccuua gagaucaccu agucuuucga cuaggcgcug cccaccaguc uuauuaccuc 60

acuaugugag guacugguac gaacuccaaa gaguucuucc gaaggguuca aggaguaaaa 120

cccaagggca gcucaauccu cuuguaaaag gaagacguuu caacaacgau uaccguuuua 180

agaaacgguu auaacuagcc uucaaguagg ccacacuagu guaacgcucu ucagcgggca 240

cu 242

<210> 12

<211> 12

<212> DNA

<213> Artificial

<220>

<223> artificial sequence used to show antisense relationship of a gen

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and IRES to a promoter and viral 3' UTR

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<400> 12
nnncatggaa tt

12

<210> 13
<211> 12
<212> DNA
<213> Artificial

<220>
<223> complement of artificial sequence used to show antisense
relationship of a gene and IRES to a promoter and viral 3' UTR

<220>
<221> misc_feature
<222> (10)..(12)
<223> n is a, c, g, or t

<400> 13
aattccatgn nn

12

<210> 14
<211> 12
<212> RNA
<213> Artificial

<220>
<223> Transcript of RNA polymerase

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or u

<400> 14
nnncauggaa uu

12

<210> 15
<211> 12
<212> RNA
<213> artificial

<220>
<223> Complement of transcript of RNA polymerase

<220>
<221> misc_feature
<222> (10)..(12)
<223> n is a, c, g, or u

<400> 15
aaauccaugn nn

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